FGC Forest Genetics Council of British Columbia

STRATEGIC PLAN
2004–2008

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Douglas-fir flowers at the stage of pollen receptivity
Jodi Woods

Lodgepole pine orchard at Vernon Seed Orchard Company
Don Carson

Western redcedar female cones at the stage of pollen receptivity
Annette van Niejenhuis

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FGC Strategic Plan 2004–2008 Statement of Purpose

Forests are the most important natural resource in British Columbia. Indigenous forest trees are the foundation of this resource, and the conservation and management of their gene pool is fundamental to all activities concerned with the use of forests.

The Forest Genetics Council of BC (FGC) leads a provincial forest gene resource management program that encompasses the conservation, controlled use, and enhancement of the genetic resources of forest tree species.

This Strategic Plan sets out objectives, business planning structure, and cooperative principles for the program coordinated and delivered by the FGC.

> *"Conservation and management of the genetic resource is fundamental to resource stewardship and good forest management"*

Background

Forest gene resource management (GRM) in British Columbia is a shared responsibility between the Ministry of Forests and forest companies operating on Crown lands. GRM has historically been coordinated through cooperative Councils, beginning with the Plus Tree Board in the 1960s. The Forest Genetics Council of BC (FGC) provides a forum for policy development, business planning, and coordination among agencies and companies concerned with forest management.

Under present international treaty obligations for biodiversity and sustainability, the genetic resource is recognized as a basic element that allows all processes at the ecosystem and landscape levels to exist. The genetic resource is, therefore, beyond commercial value, and an essential element of biodiversity. Knowledge acquisition and management to understand and conserve the genetic resource will help ensure the long-term biological viability of a commercial forest industry. In addition, breeding and the production of improved germplasm will enhance commercial values and contribute to the maintenance of genetic diversity and adaptability.

> *"The genetic resource is an essential element of biodiversity"*

Policy and Legislation

Responsibility and authority for stewardship of the forest resources of British Columbia are delegated to the Ministry of Forests by the *Ministry of Forests Act*. This responsibility includes stewardship of the genetic resource.

The *Forest Practices Code of British Columbia Act* and its associated Regulations currently govern tree seed production, registration, and use. In 2004, the *Forest and Range Practices Act*, associated Regulations, and Chief Forester Standards will govern these issues.

To deliver its obligations, the Ministry of Forests relies on, and contributes to, the broad forest gene resource management program coordinated by the FGC and implemented by cooperating organizations.

Western redcedar female flowers
R. Hill photo

Western redcedar orchard, Western Forest Products Ltd.
Annette van Neijenhuis photo

FGC Objectives

GOAL

Lead the cooperative management of tree gene resources in British Columbia consistent with scientific and conservation principles

OBJECTIVE 1

Increase the average volume gain of select seed used for Crown land reforestation to 20% by the year 2020

Gains in commercial traits require effective tree breeding programs and the coordination of breeding with seed orchard operations[1]. Success is highly dependent on the following elements, all of which will be supported through FGC planning and programs:

- expert human resources in Ministry of Forests breeding programs
- stable, long-term program support
- systems for the implementation and maintenance of long-term trials and records
- breeding arboreta, gene archives, and other resources required for long-term program delivery
- consistent and stable policy.

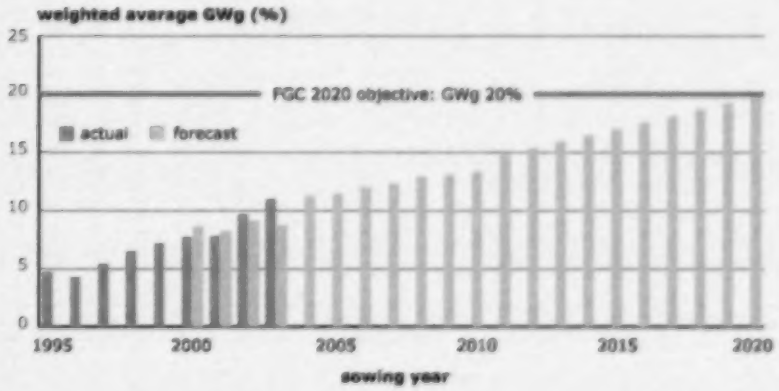


Figure 1
Actual and forecast gain in volume (GWg) of orchard seed[2] used (1995–2020)

[2] Seed orchards are the predominant means for producing select material in British Columbia; however, vegetative production systems are not intended to be excluded.

[1] "Select" describes seed and vegetative material having a level of genetic gain (GW>0). All seed and vegetative lots derived from orchards and production facilities (genetic Class A) and superior provenances (genetic Class B+) are considered to be select.

OBJECTIVE 2

Increase select seed use to 75% of the provincial total sown by 2013

Select material developed through breeding programs attains value only through operational deployment. The FGC will support seed orchard programs through business planning and policy development to ensure:

- adequate production capacity
- coordination with breeding programs
- development and sharing of technical information
- development of information systems for seed inventory, ordering, and marketing
- support for a viable seed market.

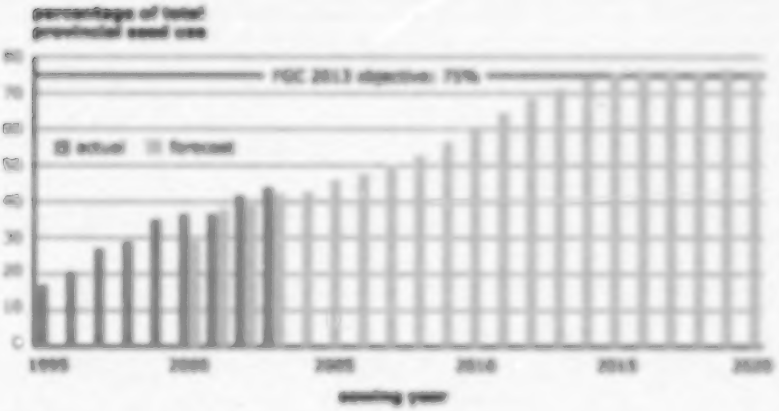


Figure 2
Actual and forecast select seed use in British Columbia (1995–2020)

OBJECTIVE 3

Support gene conservation research and the cataloguing of indigenous-tree genetic resources

Effective gene conservation requires knowledge of populations and conservation genetics, a comprehensive inventory of the forest-tree genetic resource, and the systematic identification of priority species and populations for conservation. The FGC will support policy development with government agencies, and where forest tree gene resources are at risk, will initiate appropriate conservation activities.

OBJECTIVE 4

Coordinate stakeholder activities and secure resources to meet Business Plan priorities

By setting clear strategic goals and objectives and by annual business planning, the PCC will:

- anticipate resource needs and act to ensure that these needs will be met
- seek needed resources
- develop program structure and resourcing to minimize reliance on annual program funding sources
- strive for programs increasingly self-financed through seed sales

OBJECTIVE 5

Monitor progress in gene resource management activities

Business planning will include systems for monitoring and annually reporting progress by performance indicators at the provincial and project levels, and evaluating effectiveness on the landbase.

Controlled pollination of Douglas-fir
seed orchard ramet

Figure 1
[illegible]

Structure and Membership

The Forest Genetics Council will be formally structured, with bylaws to govern membership, meetings, and decision-making. Membership on Council will be balanced among stakeholder groups, including seed producers and seed users.

[illegible]		[illegible]
[illegible]	- Industry - Ministry of Forests	1 1
[illegible]		3
[illegible]	- Interior seed producer - Interior seed users (cents and seeds) - Coast seed user - Coast seed producer	1 3 1 1
[illegible]		2
[illegible]		1
[illegible]		1
[illegible]		1
		15

Douglas-fir flowers on the verge of pollen receptivity and seed cone

Society and Switchback Company Ltd.

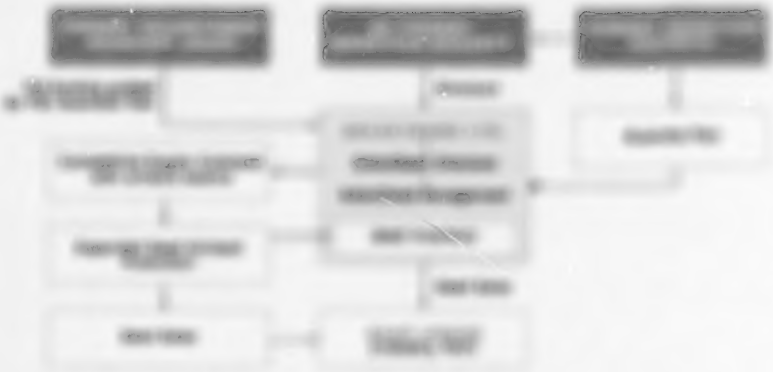
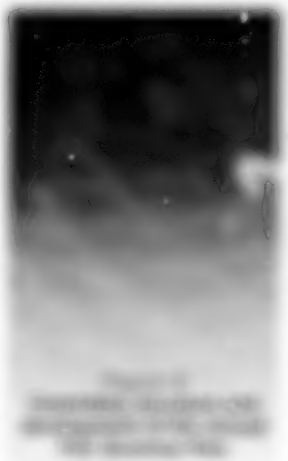


Figure 1:
[illegible]

[illegible]

[illegible]

[illegible]



Business Planning

PBD Business Plan Development

[illegible] issues

[illegible] challenges in the ongoing [illegible] [illegible] [illegible]